In the Claims:

This listing of claims will replace all prior versions and listings of claims in the application:

1-31. (canceled).

32. (original) A system for separating integrated devices from an array of integrated devices on a semiconductor substrate, comprising:

a laser generating laser energy in a wavelength substantially absorbed by the semiconductor substrate;

a stage adapted to support, and move, the substrate, the stage including a vacuum chuck having a porous mounting surface adapted to secure the semiconductor substrate on the stage by suction through pores in the porous mounting surface;

optics directing the laser energy to impact the semiconductor substrate secured on the stage; and

a control system coupled to the solid state laser and the stage, the control system controlling the laser and stage, and causing the laser energy to impact the semiconductor substrate in a pattern at a rate of motion sufficient to cut kerfs substantially through the substrate in the pattern.

33. (original) The system of claim 32, wherein the vacuum chuck comprises a removable porous member.

34. (original) The system of claim 32, wherein the vacuum chuck comprises a porous member, and the porous member comprises ceramic.

35. (original) The system of claim 32, wherein the vacuum chuck comprises a porous member, and the porous member comprises a flexible, porous sheet.

36. (original) The system of claim 32, wherein the vacuum chuck comprises a porous member, and the porous member comprises porous paper.

37. (original) The system of claim 32, wherein the vacuum chuck comprises a porous member, and the porous member comprises porous plastic.

38. (original) The system of claim 32, wherein the vacuum chuck comprises a porous member, and the porous member comprises porous metal.

39. (original) The system of claim 32, wherein the laser comprises a pulsed laser, and the control system controls a rate of motion of the stage, causing overlap of successive pulses.

40. (original) The system of claim 32, including an edge detection system which detects edges of a substrate mounting on the stage during movement of the stage;

41. (original) The system of claim 32, wherein the control system includes logic to set up said pattern.

42. (original) The system of claim 32, including a video system for viewing a substrate mounted on the stage.

43. (original) The system of claim 32, wherein the control system includes logic to set up parameters including pulse repetition rate, pulse energy and stage speed.

44. (original) The system of claim 32, wherein the laser comprises a Q-switched Nd:YAG laser.

45. (original) The system of claim 32, wherein the laser comprises a Q-switched Nd:YVO4 laser.

46. (original) The system of claim 32, wherein the laser comprises a diode pumped, Q-switched Nd:YVO4 laser operating at a third harmonic wavelength of about 355 nanometers.

47. (original) The system of claim 32, wherein the laser comprises a diode pumped, Q-switched Nd:YAG laser operating at a third harmonic wavelength of about 355 nanometers.

48. (original) The system of claim 32, wherein the kerfs have a width between about 5 and 15 microns.

49. (currently amended) A system for separating laser diodes from an array of laser diodes on a semiconductor substrate, comprising:

a Q-switched, solid state laser generating pulses of laser energy in a wavelength between about 150 and 560 nanometers, ~~pulse duration less than about 30 nanoseconds~~ and a spot size of less than 25 microns, at a repetition rate of greater than 10 kHz;

a stage adapted to support, and move, the semiconductor substrate, the stage including a vacuum chuck having a porous mounting surface adapted to secure the substrate on the stage by suction through pores in the porous mounting surface;

optics directing the pulses to impact the semiconductor substrate secured on the stage; and

a control system coupled to the solid state laser and the stage, the control system controlling the laser and stage, and causing the pulses to impact the semiconductor substrate in a pattern at a rate of motion causing overlap of successive pulses sufficient to cut kerfs substantially through the substrate.

50. (original) The system of claim 49, wherein the vacuum chuck comprises a removable porous member.

51. (original) The system of claim 49, wherein the vacuum chuck comprises a porous member, and the porous member comprises ceramic.

52. (original) The system of claim 49, wherein the vacuum chuck comprises a porous member, and the porous member comprises a flexible, porous sheet.

53. (original) The system of claim 49, wherein the vacuum chuck comprises a porous member, and the porous member comprises porous paper.

54. (original) The system of claim 49, wherein the vacuum chuck comprises a porous member,

and the porous member comprises porous plastic.

55. (original) The system of claim 49, wherein the vacuum chuck comprises a porous member, and the porous member comprises porous metal.

56. (original) The system of claim 49, wherein the control system includes logic to set up said pattern.

57. (original) The system of claim 49, including a video system for viewing a substrate mounted on the stage.

58. (original) The system of claim 49, wherein the laser comprises a Q-switched Nd:YAG laser.

59. (original) The system of claim 49, wherein the laser comprises a Q-switched Nd:YVO4 laser.

60. (original) The system of claim 49, wherein the laser comprises a diode pumped, Q-switched Nd:YAG laser operating at a third harmonic wavelength of about 355 nanometers.

61. (original) The system of claim 49, wherein the laser comprises a diode pumped, Q-switched Nd:YVO4 laser operating at a third harmonic wavelength of about 355 nanometers.

62. (original) The system of claim 49, wherein the kerfs have a width between about 5 and 15 microns.

63. (original) The system of claim 49, wherein the overlap is in a range from 50 to 99 percent.

64. (original) The system of claim 49, wherein the pulse rate is between about 20 kHz and 50 kHz.

65. (original) The system of claim 49, wherein said energy density is between about 10 and 100 joules per square centimeter, said pulse duration is between about 10 and 30 nanoseconds, and

the spot size is between about 5 and 25 microns.

66. (original) The system of claim 49, wherein the substrate includes an integrated circuit.

67-82. (canceled).

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